

Amendments to the Drawings:

No amendments are made to the Drawings herein.

REMARKS

By the foregoing Amendment, Claims 10, 25, 26 and 29-31 are amended and Claims 17, 22, 23, 39 and 40 are cancelled. Claims 1-9 have been withdrawn from consideration. Entry of the Amendment, and favorable consideration thereof is earnestly requested.

Claims 25, 29-31 and 39-42 stand rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Claim 25 has been amended to correct a clerical error, Claims 29, 30 and 31 have been amended to provide proper antecedent basis for the identified claim elements, and Claims 39 and 40 have been cancelled. Applicant believes that the amendments address all of the Examiner's rejections under 35 U.S.C. 112. Claim 26 has also been amended to correct informalities in format.

The Examiner has stated a belief that "Claims 22 and 23 are functional and are not fully structurally supported." Claims 22 and 23 have been cancelled.

Claims 32-38 are allowed. Claims 10-13, 15, 16, 18-31 and 41-43 stand rejected under 35 U.S.C. 102(b) as being anticipated by Leiber (U.S. Patent No. 3,921,666), Claim 14 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Leiber in view of Fujiwara et al. (U.S. Patent No. 4,617,952), and Claim 17 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Leiber in view of Foster et al. (U.S. Patent No. 6,637,462). Applicant respectfully asks the Examiner to reconsider these rejections in view of the above Amendments and the below Remarks.

Claim 10 has been amended to incorporate all limitations of former dependent Claim 17, and Claim 17 has been cancelled. Thus, Claim 10 now requires that the pressure supply to the fluid switch is drawn from the pressure supply to the main valve thereby making the flow into the control chamber partly proportional to the supply pressure.

In Leiber, pressure to the fluid switch is drawn from an isolated compressed air source 72, and is not drawn from the pressure supply to the main valve. Thus, flow to the control chamber is not proportional to the main supply pressure. The Examiner has explicitly recognized this fact, recognizing in Paragraph 6 of the outstanding Office Action that “the supply to the main valve of Figure 10 of Leiber does not serve to supply the pilot valve 71 of Leiber”. However, the Examiner cites Foster et al. as showing a pilot supply passage 128 which is connected to main valve supply 32, and asserts that it would have been obvious in view of Foster et al. to utilize the supply of the main valve as a convenient supply for the pilot valve 71 of Figure 10 of Leiber, if desired. Applicant respectfully disagrees.

It is well settled that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). It is also well settled that if the proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). In the present case, Applicant respectfully submits that the valve assembly illustrated in Figure 10 of Leiber would not work effectively in an anti-lock control system if the teachings of Foster et al. were applied in the way suggested by the Examiner, and that one skilled in the art would appreciate this fact. Therefore, one

skilled in that art would not think to combine the teachings of the two cited references in the way suggested by the Examiner.

Effective operation of the Leiber valve assembly requires a supply of fluid to the fluid switch at a substantially constant pressure. In an anti-lock control system, the delivery pressure, i.e. the pressure supplied to the main valve, is variable, and depends on driver demand. Thus, if the port 63 and the fluid switch 71 of the Leiber valve assembly were both supplied with fluid from the delivery source, the pressure of fluid entering the control chamber 60 would be variable.

At high delivery pressures, if the fluid switch 71 is opened to allow flow of fluid into the control chamber, the delivery pressure overcomes the biasing force of the spring 58, and moves the armature plunger 52 to the left as shown in Figure 10. Thus, ports 64 and 65 can be connected. In contrast, at sufficiently low delivery pressures, the delivery pressure would be insufficient to overcome the biasing force of the spring 58. It would therefore be impossible for the valve assembly to be operated at low delivery pressures to connect ports 64 and 65.

Of course, the biasing force of the spring 58 could be made to be sufficiently weak that the armature plunger 52 may be moved in response to the lowest realistic delivery pressure, but, of course, to do so, would render the valve assembly incapable of operating effectively at high delivery pressures. At high delivery pressures, it would be extremely difficult, if not impossible, to control switching of the fluid switch to attain an intermediate pressure in the control chamber so that the armature plunger 52 moves to close both ports 63 and 65 as desired.

In contrast, the valve assembly according to the present invention is configured such that the delivery pressure can be fed to the control chamber and complete control over the connections between the three ports achieved over a range of delivery pressures. This is not achievable using the Examiner's suggested modification of the Leiber valve assembly.

In view of the above, Applicant respectfully submits that Claim 10, as well as all claims which depend therefrom (i.e., Claims 11-16, 18-21, 24-31 and 41-43) are patentable over the references of record.

For the foregoing reasons, Applicant respectfully submits that all pending claims, namely Claims 10-16, 18-21, 24-38 and 41-43, are in condition for allowance, and early notification of the same is requested.

Respectfully submitted,



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